

Clinical Practice Guideline: Improving Voice Outcomes after Thyroid Surgery

Content

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OBJECTIVE: Thyroidectomy may be performed for clinical indications that include malignancy, benign nodules or cysts, suspicious findings on fine needle aspiration biopsy, dysphagia from cervical esophageal compression, or dyspnea from airway compression. About 1 in 10 patients experience temporary laryngeal nerve injury after surgery, with longer lasting voice problems in up to 1 in 25. Reduced quality of life after thyroid surgery is multifactorial and may include the need for lifelong medication, thyroid suppression, radioactive scanning/treatment, temporary and permanent hypoparathyroidism, temporary or permanent dysphonia postoperatively, and dysphagia. This clinical practice guideline provides evidence-based recommendations for management of the patient's voice when undergoing thyroid surgery during the preoperative, intraoperative, and postoperative period.

PURPOSE: The purpose of this guideline is to optimize voice outcomes for adult patients aged 18 years or older after thyroid surgery. The target audience is any clinician involved in managing such patients, which includes but may not be limited to otolaryngologists, general surgeons, endocrinologists, internists, speech-language pathologists, family physicians and other primary care providers, anesthesiologists, nurses, and others who manage patients with thyroid/voice issues. The guideline applies to any setting in which clinicians may interact with patients before, during, or after thyroid surgery. Children under age 18 years are specifically excluded from the target population; however, the panel understands that many of the findings may be applicable to this population. Also excluded are patients undergoing concurrent laryngectomy. Although this guideline is limited to thyroidectomy, some of the recommendations may extrapolate to parathyroidectomy as well.

RESULTS: The guideline development group made a strong recommendation that the surgeon should identify the recurrent laryngeal nerve(s) during thyroid surgery. The group made recommendations that the clinician or surgeon should (1) document assessment of the patient's voice once a decision has been made to proceed with thyroid surgery; (2) examine vocal fold mobility, or refer the patient to a clinician who can examine vocal fold mobility, if the patient's voice is impaired and a decision has been made to proceed with thyroid surgery; (3) examine vocal fold mobility, or refer the patient to a clinician who can examine vocal fold mobility, once a decision has been made to proceed with thyroid surgery if the patient's voice is normal and the patient has (a) thyroid cancer with suspected extrathyroidal extension, or (b) prior neck surgery that increases the risk of laryngeal nerve injury (carotid endarterectomy, anterior approach to the cervical spine, cervical esophagectomy, and prior thyroid or parathyroid surgery), or (c) both; (4) educate the patient about the potential impact of thyroid surgery on voice once a decision has been made to proceed with thyroid surgery; (5) inform the anesthesiologist of the results of abnormal preoperative laryngeal assessment in patients who have had laryngoscopy prior to thyroid surgery; (6) take steps to preserve the external branch of the superior laryngeal nerve(s) when

performing thyroid surgery; (7) document whether there has been a change in voice between 2 weeks and 2 months following thyroid surgery; (8) examine vocal fold mobility or refer the patient for examination of vocal fold mobility in patients with a change in voice following thyroid surgery; (9) refer a patient to an otolaryngologist when abnormal vocal fold mobility is identified after thyroid surgery; (10) counsel patients with voice change or abnormal vocal fold mobility after thyroid surgery on options for voice rehabilitation. The group made an option that the surgeon or his or her designee may monitor laryngeal electromyography during thyroid surgery. The group made no recommendation regarding the impact of a single intraoperative dose of intravenous corticosteroid on voice outcomes in patients undergoing thyroid surgery.